

# Making Dilutions

Work Sheet 13.003

$$M_1V_1 = M_2V_2$$

Name \_\_\_\_\_

Date \_\_\_\_\_

Period \_\_\_\_\_

Perform the following calculations in the space provided. SHOW WORK

1. Make 98.5 mL of 1.25 M barium nitrate from a 4.50 M solution.
2. Make 79.00 mL of 1.25M sodium nitrate from a 3.15 M solution.
3. Make 900. mL of 0.650 M phosphoric acid from a 4.37 M solution.
4. Make 1250. mL of 6.0 M HCl from concentrated stock (12.0 M).
5. Dilute 896 mL of 3.00 M sulfuric acid until you have 1750. mL, what is the new molarity?
6. Dilute 14.0 mL of 2.50 M ammonium nitrate until you have 100. mL, what is the new concentration?
7. Create a new concentration of 0.375 M by adding 25.0 mL of water to 75.0 mL of solution. What was the old concentration?
8. Create a new concentration of 2.75 M by adding 85.5 mL of water to 200. mL of solution. What was the old concentration?